

# Newell's Dynamic Teapot

Newell's teapot represents a classic benchmark geometric model in the field of Computer Graphics. This world contains a VRML teapot on the left-hand side of an office desk. On the right side, you find a dynamic model (functional block model) representing the action of 1) pressing the knob to heat water in the teapot, 2) the heating of the water, and 3) the sensing of the water temperature with a thermometer. Inside the 2nd cube, a small system of pipes and tanks captures the semantics of a finite state machine for the change in water temperature from cold to heating to cooling. When a state is active, the red color is intensified. Inside each tank, one finds a blackboard. On each blackboard, one finds a differential equation defining the dynamics of each state.

